

## FIGURE 1

(SEQ ID NO:1-nucleotide sequence and SEQ ID NO:2-amino acid sequence)

### *Escherichia coli* B Phytase Sequence

1  
ATG AAA GCG ATC TTA ATC CCA TTT TTA TCT CTT CTG ATT CCG  
TTA ACC CCG  
Met Lys Ala Ile Leu Ile Pro Phe Leu Ser Leu Leu Ile Pro  
Leu Thr Pro  
  
CAA TCT GCA TTC GCT CAG AGT GAG CCG GAG CTG AAG CTG GAA  
AGT GTG GTG  
Gln Ser Ala Phe Ala Gln Ser Glu Pro Glu Leu Lys Leu Glu  
Ser Val Val  
  
ATT GTC AGT CGT CAT GGT GTG CGT GCT CCA ACC AAG GCC ACG  
CAA CTG ATG  
Ile Val Ser Arg His Gly Val Arg Ala Pro Thr Lys Ala Thr  
Gln Leu Met  
  
CAG GAT GTC ACC CCA GAC GCA TGG CCA ACC TGG CCG GTA AAA  
CTG GGT TGG  
Gln Asp Val Thr Pro Asp Ala Trp Pro Thr Trp Pro Val Lys  
Leu Gly Trp  
  
CTG ACA CCG CGN GGT GGT GAG CTA ATC GCC TAT CTC GGA CAT  
TAC CAA CGC  
Leu Thr Pro Arg Gly Gly Glu Leu Ile Ala Tyr Leu Gly His  
Tyr Gln Arg  
  
CAG CGT CTG GTA GCC GAC GGA TTG CTG GCG AAA AAG GGC TGC  
CCG CAG TCT  
Gln Arg Leu Val Ala Asp Gly Leu Leu Ala Lys Lys Gly Cys  
Pro Gln Ser  
  
GGT CAG GTC GCG ATT ATT GCT GAT GTC GAC GAG CGT ACC CGT  
AAA ACA GGC  
Gly Gln Val Ala Ile Ile Ala Asp Val Asp Glu Arg Thr Arg  
Lys Thr Gly  
  
GAA GCC TTC GCC GCC GGG CTG GCA CCT GAC TGT GCA ATA ACC  
GTA CAT ACC

Glu Ala Phe Ala Ala Gly Leu Ala Pro Asp Cys Ala Ile Thr  
Val His Thr

CAG GCA GAT ACG TCC AGT CCC GAT CCG TTA TTT AAT CCT CTA  
AAA ACT GGC

Gln Ala Asp Thr Ser Ser Pro Asp Pro Leu Phe Asn Pro Leu  
Lys Thr Gly

GTT TGC CAA CTG GAT AAC GCG AAC GTG ACT GAC GCG ATC CTC  
AGC AGG GCA

Val Cys Gln Leu Asp Asn Ala Asn Val Thr Asp Ala Ile Leu  
Ser Arg Ala

GGA GGG TCA ATT GCT GAC TTT ACC GGG CAT CGG CAA ACG GCG  
TTT CGC GAA

Gly Gly Ser Ile Ala Asp Phe Thr Gly His Arg Gln Thr Ala  
Phe Arg Glu

CTG GAA CGG GTG CTT AAT TTT CCG CAA TCA AAC TTG TGC CTT  
AAA CGT GAG

Leu Glu Arg Val Leu Asn Phe Pro Gln Ser Asn Leu Cys Leu  
Lys Arg Glu

AAA CAG GAC GAA AGC TGT TCA TTA ACG CAG GCA TTA CCA TCG  
GAA CTC AAG

Lys Gln Asp Glu Ser Cys Ser Leu Thr Gln Ala Leu Pro Ser  
Glu Leu Lys

GTC AGC GCC GAC AAT GTC TCA TTA ACC GGT GCG GTA AGC CTC  
GCA TCA ATG

Val Ser Ala Asp Asn Val Ser Leu Thr Gly Ala Val Ser Leu  
Ala Ser Met

CTG ACG GAG ATA TTT CTC CTG CAA CAA GCA CAG GGA ATG CCG  
GAG CCG GGG

Leu Thr Glu Ile Phe Leu Leu Gln Gln Ala Gln Gly Met Pro  
Glu Pro Gly

TGG GGA AGG ATC ACC GAT TCA CAC CAG TGG AAC ACC TTG CTA  
AGT TTG CAT

Trp Gly Arg Ile Thr Asp Ser His Gln Trp Asn Thr Leu Leu  
Ser Leu His

AAC GCG CAA TTT TAT TTG CTA CAA CGC ACG CCA GAG GTT GCC  
CGC AGC CGC

Asn Ala Gln Phe Tyr Leu Leu Gln Arg Thr Pro Glu Val Ala  
Arg Ser Arg

GCC ACC CCG TTA TTG GAT TTG ATC ATG GCA GCG TTG ACG CCC  
CAT CCA CCG

Ala Thr Pro Leu Leu Asp Leu Ile Met Ala Ala Leu Thr Pro  
His Pro Pro

CAA AAA CAG GCG TAT GGT GTG ACA TTA CCC ACT TCA GTA CTG  
TTT ATT GCC

Gln Lys Gln Ala Tyr Gly Val Thr Leu Pro Thr Ser Val Leu  
Phe Ile Ala

GGA CAC GAT ACT AAT CTG GCA AAT CTC GGC GGC GCA CTG GAG  
CTC AAC TGG

Gly His Asp Thr Asn Leu Ala Asn Leu Gly Gly Ala Leu Glu  
Leu Asn Trp

ACG CTT CCC GGT CAG CCG GAT AAC ACG CCG CCA GGT GGT GAA  
CTG GTG TTT

Thr Leu Pro Gly Gln Pro Asp Asn Thr Pro Pro Gly Gly Glu  
Leu Val Phe

GAA CGC TGG CGT CGG CTA AGC GAT AAC AGC CAG TGG ATT CAG  
GTT TCG CTG

Glu Arg Trp Arg Arg Leu Ser Asp Asn Ser Gln Trp Ile Gln  
Val Ser Leu

GTC TTC CAG ACT TTA CAG CAG ATG CGT GAT AAA ACG CCG CTG  
TCA TTA AAT

Val Phe Gln Thr Leu Gln Gln Met Arg Asp Lys Thr Pro Leu  
Ser Leu Asn

ACG CCG CCC GGA GAG GTG AAA CTG ACC CTG GCA GGA TGT GAA  
GAG CGA AAT

Thr Pro Pro Gly Glu Val Lys Leu Thr Leu Ala Gly Cys Glu  
Glu Arg Asn

GCG CAG GGC ATG TGT TCG TTG GCA GGT TTT ACG CAA ATC GTG  
AAT GAA GCA

Ala Gln Gly Met Cys Ser Leu Ala Gly Phe Thr Gln Ile Val  
Asn Glu Ala

CGC ATA CCG GCG TGC AGT TTG AGA TCT CAT CAC CAT CAC CAT  
CAC TAA 1323

Arg Ile Pro Ala Cys Ser Leu Arg Ser His His His His His  
His End

**FIGURE 2**  
**pH/Temperature Profile and Stability**

